

# IEP Science Highlights

## IEP Quarterly Directors Update

December 2010

### **POD Update**

#### **2010 POD Fish Survey Results**

- The 2010 Summer Towntnet Survey indices for age-0 striped bass and delta smelt were higher than in previous POD years, but remained low compared to indices prior to 2002.
- The Fall Midwater Trawl survey was completed on December 8, 2010. Preliminary results indicate there will be improvements from the previous-year index for delta smelt and longfin smelt.

#### **2010 POD Report**

- The POD Management Team completed the “2010 Pelagic Organism Decline Work Plan and Synthesis of Results” progress report. It was posted on the IEP website on December 6, 2010.
- The report presents new POD study results and tells the POD story from three different perspectives presented in “conceptual models” linking the POD species with environmental drivers (stressors).
- The “bottom-lines” of the three POD story lines are that the
  - POD was caused by multiple and often interacting drivers,
  - effects of drivers differed among the four POD species, and
  - POD may represent a rapid ecosystem “regime shift” that followed a longer-term erosion of ecological resilience.
- The regime shift story is presented as a working hypothesis for future investigations. It may inform management strategies aimed at shifting the ecosystem into a more desirable state and improving long-term ecosystem resilience.
- Overall, the report informs management strategies ranging from individual species to ecosystem management.
- The IEP lead scientist presented POD report overviews to the Delta Independent Science Board, the NRC committee on Sustainable Water and Environmental Management in the California Bay-Delta, and the Delta Stewardship Council.

#### **2010 POD Publications and Reports**

- The number of peer-reviewed POD publications increased from nine publications in 2009 to 22 in 2010, with many more in review.
- POD publications and final reports have been posted on the POD website.

#### **2011 POD Work Plan**

- Will include ongoing studies as well as studies newly funded as part of the Near-Term Science Strategy and Integrated BDCP Biological Opinion Strategy developed by the joint DOI/DOC Federal Biological Opinion Task Force. This includes the delta smelt migration study led by the USGS.
- Will emphasize analysis and synthesis of previously collected data in preparation of a fully peer-reviewed, final POD synthesis report to be completed in 2012-13.

### **Other IEP Science Activities:**

- IEP staff participation in BDCP Logic Chain workshop
- Meetings on IEP-BDCP coordination
- Participation in Delta Plan Science and Adaptive Management planning
- Participation in Delta ISB meetings (October & December 2010)